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(54) Device and method for coding video information

(57) A video encoder includes a signal processing unit (10) for producing block information such as quantization scale and quantized DCT coefficients and a coding unit 11 for variable-length coding the quantized block information. The amount of generated coded data per unit time (Evop) is estimated from the count (Ncoef(i)) of quantized DCT coefficients contained in block infor-

mation prior to coding, the amount of coded data (C(y)), and the average codeword length (L(y)) of coded block information. A quantization scale control unit (16) determines the most suitable quantization scale factor on the basis of the target amount of generated coded data (Tvop) and the amount of generated coded data (Evop) and sends it to a quantization unit (22) in the signal processing unit (10).

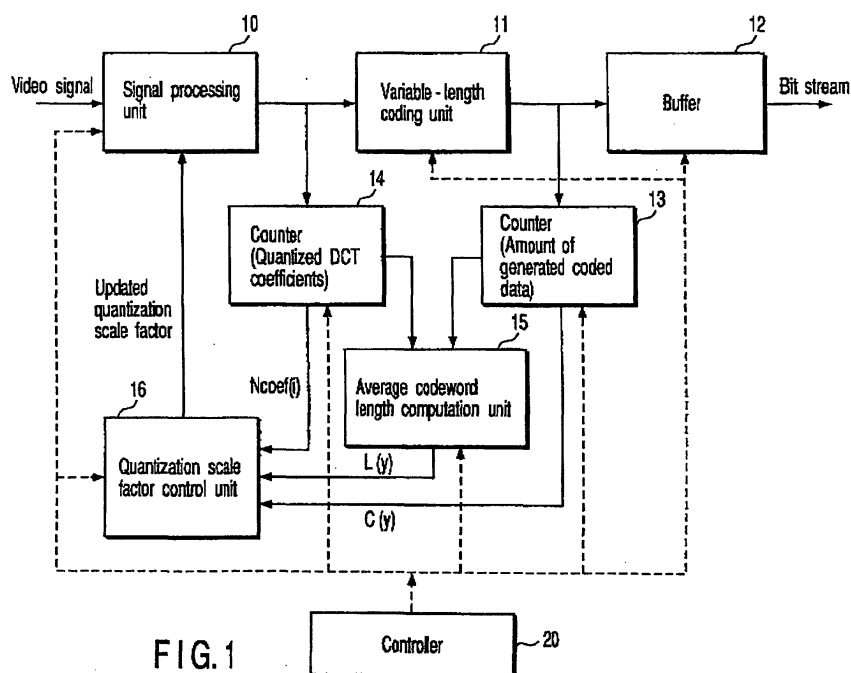


FIG. 1



European Patent  
Office

# EUROPEAN SEARCH REPORT

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| DOCUMENTS CONSIDERED TO BE RELEVANT                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                              |                                              |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|
| Category                                                                                                                                                                                                                                               | Citation of document with indication, where appropriate, of relevant passages                                                                                                                                                                                                                                                                            | Relevant to claim                                                                                                                                                                                                                                                            | CLASSIFICATION OF THE APPLICATION (Int.Cl.7) |
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| The present search report has been drawn up for all claims                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                              |                                              |
| Place of search<br>THE HAGUE                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                          | Date of completion of the search<br>23 March 2004                                                                                                                                                                                                                            | Examiner<br>Wahrenberg, A.                   |
| CATEGORY OF CITED DOCUMENTS<br>X : particularly relevant if taken alone<br>Y : particularly relevant if combined with another document of the same category<br>A : technological background<br>O : non-written disclosure<br>P : intermediate document |                                                                                                                                                                                                                                                                                                                                                          | T : theory or principle underlying the invention<br>E : earlier patent document, but published on, or after the filing date<br>D : document cited in the application<br>L : document cited for other reasons<br>& : member of the same patent family, corresponding document |                                              |

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**ANNEX TO THE EUROPEAN SEARCH REPORT  
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